The 13th September 1880.

No. 99.—Mr. N. Venkat Rao, Attaché, Túmkúr District, returned from the leave on medical certificate granted to him in Chief Commissioner's Notification No. 90, dated 24th August 1880, to duty on the forenoon of the 3rd instant.

The unexpired portion of the leave is cancelled.

The 16th September 1880.

No. 100.—D. Shama Rao, Amildar, Bangalore Taluk, is invested with the powers of a Magistrate of the 2nd Class, as described in Sections 20, 22 and 24 of the Code of Criminal Procedure.

By Order,

W. J. CUNINGHAM,
Secretary.

REVENUE DEPARTMENT.

NOTIFICATIONS.

The 31st August 1880.

No. 49.—It is hereby notified for general information that the undermentioned villages at present attached to the Bendikere Magani in the Banavar Taluk of the Kadur District, are transferred to the Haranhalli Taluk of the Hassan District :—

1. Bendikere.	6. Jajur.	11. Hiriyur.	16. Kanihalli.
2. Mahomadpur.	7. Nagatihalli.	12. Bairambadi.	17. Timmappaiyanhalli.
3. Satanhalli.	8. Kalnayakanhalli.	13. Bisalhalli.	18. Timmashettihalli.
4. Saidarhalli.	9. Layalapur.	14. Lakkanhalli.	19. Hariharpur.
5. Chikkur.	10. Devagondanhalli.	15. Gollarhalli.	20. Bettadpur.

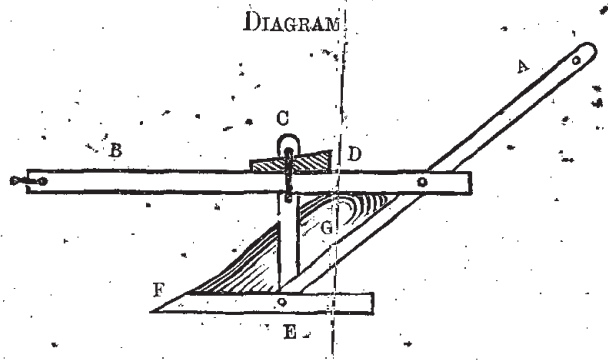
The 7th September 1880.

No. 51.—In publishing the accompanying description of a cheap, light and useful plough manufactured at the Cawnpore Farm Workshop, after the best American model, the public are informed that samples of the plough are to be seen at the Lal-Bagh, Bangalore.

THE 'KAISAR' PLOUGH.

Adopted from the best American models, and manufactured at the Cawnpore Farm Workshops under the Department of Agriculture and Commerce, North-Western Provinces and Oudh.

DIAGRAM.



A. The handle (of wood).	D. The wedge (of wood).
B. The beam (of wood).	E. The sole (of angle iron).
C. The standard (of iron).	F. The share (of steel).

G. The breast (of sheet iron).

DESCRIPTION OF THE PLOUGH.

The characteristics of this plough are—

(i) *Cheapness*—it only costs Rs. 6 at Cawnpore, and could probably be made up by a native *Mestri* for Rs. 4-8 or Rs. 5.

(ii) *Lightness in weight*—it only weighs 16 seers, and can, therefore, be easily carried on the ploughman's shoulder,

and *in draught*—it can easily be drawn by a pair of ordinarily good bullocks since its draught is only 62 seers on the bullocks, when ploughing at a depth of 5 inches in moderately light soils.

(iii) *Simplicity of construction*—it is made entirely of wrought iron and wood, so as to be easily repairable. All the iron work, except the share, can be purchased in any bazar, consisting as it does of a piece of angle-iron (for the sole), a strip of sheet iron (for the mould board), and an iron bar (for the standard).

The share is made of steel, and is, therefore, durable. When it has worn down it can be easily replaced by a new one, since it is attached in the simplest manner possible, and can easily be slipped on or off at any time.

There are no screws and nuts on the plough, and all attachments are effected by simple rivets.

(iv) *It can easily be adjusted*—so as to suit soils of any consistency or bullocks of any height.

DIRECTIONS FOR USE.

The plough is attached to the yoke by a rope fastened to the iron ring at the end of the beam.

The higher the bullocks are the longer the rope should be: the rope should also be longer in ploughing hard soils than in ploughing loose soils. The average length is from 7 feet 3 inches to 7 feet 9 inches. The length it should be in each case can be discovered in a few minutes experiment.

The plough should travel perfectly evenly on its sole, and should need no downward pressure on the handle to keep the heel down, nor lifting to keep the point down. For this purpose it will be necessary to *alter the adjustment*, if the bullocks are of a different height, or the soil of a different consistency to what the plough was intended for when sent out.

If the point of the plough has a tendency to dig down into the ground, and the plough travels on its point, take out the wooden *wedge* on the beam and shift the *standard* back along the *beam*, towards the *handle*.

This will lift the point up.

If on the other hand the point has a tendency to run up out of the ground, shift the *standard* forward along the *beam*.

This will depress the point.

If the plough be not properly adjusted, the draught is much heavier on the bullocks than it should be.

THE CAPABILITIES OF THE PLOUGH.

It will, with a pair of ordinarily good bullocks and one man (driving with reins fastened to the horns of the bullocks) plough ½ acre (=1 pucka Cawnpore bigha) in a day of 7 hours.

It inverts the soil to the depth of 5 inches and does not merely stir it. The advantages of thus inverting the soil are:—

(i) Any manure which has been spread is effectually buried.

(ii) All weeds are killed and so utilized as manure.

(iii) Fresh soil is brought up to the surface which, after some exposure, becomes in most cases more fertile than the upper crust was.

(iv) A greater depth of soft soil is secured than is possible with the native plough, except after 10 or 12 ploughings ; and the soil absorbs water more readily and will need less artificial irrigation.

For the proper working of the plough it is necessary that the soil be in ploughing condition, *i. e.*, sufficiently damp for a native cultivator to plough it with his own plough.

☞ These ploughs are obtainable on application to the Office of Director, Department of Agriculture and Commerce, Cawnpore, at a price of Rs. 6 each.

SCHOOL OF ENGINEERING AND NATURAL SCIENCE.

The 16th September 1880.

No. 52.—It is hereby notified that, with the sanction of the Government of India, the Collegiate Department of the above school is closed.

2. But in order to provide facilities for such of the youths of the Province as may desire to graduate in Engineering in the Colleges elsewhere, a limited number of scholarships of Rs. 25 each per month will be provided from Provincial Funds to aid deserving young men in the Province who may desire to graduate in Engineering in the College at Poona, Madras or Calcutta. Four scholarships will be thrown open in the current year, and two more every year hereafter. The Heads of Schools and the Deputy Commissioners of the Districts may send up through the Director of Public Instruction the names of any applicants who have passed the First Examination in Arts, and who by their intelligence, character and active habits may give promise of turning out useful Engineers. The scholarships will be tenable for the period required to complete the course prescribed, subject to periodical reports of good conduct and progress from the head of the institution. No guarantee can be given for employment in Mysore or elsewhere, though preference would be given to those who had distinguished themselves at College in the selection for appointments in the Province. Applications for the scholarships should be made by the 1st of November in each year.

3. The local school will provide instruction of the standard required for Overseers, Sub-Overseers and Taluk Mestris in the Public Works Department, embracing also the knowledge necessary for Subordinates in the Revenue Survey and Topographical Survey Departments. Admission to the school will be open to all students who have matriculated or have studied for a year in a Matriculation Class. The school fee will be fixed at Rs. 2 per month. Applications for admission are now being received.

4. A limited number of scholarships of Rs. 8 per mensem each will be provided out of the Local Funds of each District, 3 for each of the Districts of Bangalore, Mysore and Shimoga and 1 for each of the remaining five Districts, or 14 scholarships in all. The Deputy Commissioners should in consultation with the Head Masters of the District Schools, select deserving students and send them on such scholarships to the school at Bangalore, where they will moreover be admitted free. Any other poor and deserving students may also be excused the school fee at the discretion of the Director of Public Instruction.

5. No guarantee of appointments will be given, but the Heads of Departments will be required to give preference in filling up appointments to those who pass out of the Local School and who may be found deserving. Not only is there a large field of employment for these men in the subordinate grades of the Public Works Department, as well as in the Revenue Survey and Topographical Survey Establishments, but the possession of such technical qualifications will count in their favor in the filling up of appointments also in the Revenue Department of the Districts and Taluks.

The arrangements for providing instruction in Natural Science and in Botany will shortly be notified.

No. 53.—Mr. J. Ramaiya Naidu, pensioned Assistant Commissioner, is appointed a Municipal Commissioner of No. 5. Blackpalli Division, Bangalore Cantonment, *vice* B. Ramalingam deceased.

By Order,

C. RANGACHARLU,
Revenue Secretary.